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ABSTRACT

Lockheed has undertaken Project DIALIB to determine whether online retrieval services could be useful to the general public, and if the public library could serve as the linking agent for these services. As part of the study, DIALOG, Lockheed's online reference retrieval system, has been made available to the public through four public libraries in San Mateo and Santa Clara counties in California. The project was inaugurated in August, 1974. For the first year, both terminals and staff training were provided free to participating Libraries. Results of an evaluation of the first year of the project indicate that DIALIB users were for the most part highly educated and asked technical questions relating to their work or study. While the service is fairly expensive, it is reaching a segment of the population that does not normally use public library reference services. The public has shown a great deal of enthusiasm for DIALIB service. In the second year of the project, users will be billed; the effects of this factor on the use of the system will be studied. The Metro-Teachers College project--a similar effort in New York City is also being studied. (Author/SL)

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# ONLINE SEARCH SERVICES IN THE PUBLIC LIBRARY: PROJECT DIALIB

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# ONLINE SEARCH SERVICES IN THE PUBLIC LIBRARY: PROJECT DIALIB

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## INTRODUCTION

Computer online search services have been in operation for the past five years; yet, there has been only limited use of such services. The high cost of both preparing and accessing large bibliographic data bases originally limited use of online services to large government organizations. As costs were reduced, both university and industrial groups began to provide online search services. Only recently, however, has an attempt been made to provide access to the general public.

The first part of this paper describes an experimental program called Project DIALIB*, which is currently underway in the San Francisco Bay Area. The second part summarizes the results of an evaluation of the first year of this program. Finally, a brief description is given of a similar program being operated in New York City.

## PROJECT DIALIB

### Background

Under the sponsorship of the Office of Science Information Service of the National Science Foundation, Lockheed has undertaken Project DIALIB to determine whether online retrieval services could be useful to the general public, and if the public library can be used as a "linking agent" to provide these services. As part of the study, DIALOG, Lockheed's online reference retrieval service, has been made available to the public through four libraries in San Mateo and Santa Clara counties. These libraries were selected by the Cooperative Information Network (CIN), a cooperative of school, public, and corporate libraries that shares information resources. In July, 1974 terminals were installed in the San Mateo County Library, the Santa Clara County Library, the San Jose City Library, and the Redwood City Library. Librarians from each of these four libraries participated in a two-day training course at Lockheed and spent about one month familiarizing themselves with the system. The official opening ceremonies took place in August 1974 and were accompanied by considerable newspaper publicity. The availability of the service was also publicized through pamphlets, notices in the participating libraries, demonstrations held in various branch libraries and at meetings of local organizations. In addition, information about the availability of the service has been disseminated by word-of-mouth, accounting for 20% of DIALOG patrons.

During the first year of the project, both terminals and staff training were provided at no cost to the participating libraries. In addition, the

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libraries received 16 hours per month of free search time and 16 hours per month of free demonstration time. Searches were offered to patrons at no cost until May 31, 1975. During the second year of the project, which began June 1, 1975, the libraries are paying one-half of the actual cost of a DIALOG search with the National Science Foundation paying the balance. By the third year, terminals and search time will be charged at the full rate and the libraries will be responsible for the total cost of the service.

Currently, the portion of the costs which the library is responsible for is being met through a combination of user fees and the library budget. Patrons are paying half the cost of computer connect time and offline citations printed. The libraries are providing staff time and overhead expenses at no cost to the patron.

Throughout the second year of the project, the libraries will be providing two different types of searches - "custom" searches and "standard" searches. The "custom" search, which was basically the type of search performed during the first year of the project, can be as extensive as necessary to answer the patron's question. This means the librarian can search as many data bases and print as many offline citations as the patron requires. Costs for this type of search are based on connect time and number of offline citations printed. The "standard" search, which has been offered since June 1, 1975, and will continue to be offered through May 31, 1976, has been established as an alternative to the potentially expensive "custom" search. For a "standard" search, the patron will be billed only $5, independent of the file searched and the connect time. The "standard" search is constrained in that only one data base may be used, no more than 20 online or offline prints may be made, no more than 30 minutes may be spent online, and no more than 10 sets or terms may be used. If the patron is dissatisfied with this search, he has the option of requesting a refund of his money by filling out a complaint form provided by Lockheed. No refund is possible if the search is performed against the recommendation of the librarian.

## PROJECT EVALUATION

The DIALIB Project is being evaluated by Applied Communication Research, Inc. (ACR), an independent evaluator with offices in Palo Alto.

### Methodology

Data currently are being collected from four different sources. The first source of data is computer command summary statistics provided by Lockheed. These statistics are available for all searches conducted and include information such as number of citations printed, search time, number of commands used, and the name of the individual conducting the search. The second source of data is through a "Search Request Form" which is filled out by the patron when a DIALOG search is requested. This form provides information about the type of search requested, about how the patron heard about the availability of the service, and about the data bases used. Copies of these forms are mailed by the librarians to ACR (patrons are given the option of refusing to allow the librarian to release their names to ACR). Upon receipt of these copies, ACR mails the patron a

follow-up questionnaire. This questionnaire deals principally with the patron's satisfaction with the results of the search and with the method used to obtain documents. Finally, data is being collected from interviews being held with head reference librarians, librarians conducting searches, and with library administrators to determine their reactions towards the first year of the project.

## First Year Evaluation Results

ACR has noted some significant trends in system usage during the first year of the project.

### Search Statistics

First of all, during the initial year of operation, the number of searches done per month by all libraries went from a total of 55 in September, 1974 to a total of 385 in April, 1975. Also, the average search time dropped from a high of 31 minutes per search to about 19 minutes per search by May, 1975. The average number of citations provided per search is 67 - including both online and offline citations. During the first year of operation, the average search has been costing from $15-25 depending on the data base used. The average search was done on at least two data bases - the most popular of which have been NTIS, Psychological Abstracts, ERIC, and Social Science Citations, in that order. These are followed in popularity by Chemical Abstracts and Engineering Index. This $15-25 figure does not include fixed expenses such as equipment and staff training or staff time.

### Staff Time

Staff time has been a major factor during the first year. The staff time spent on online searching includes four principle components:

1. The librarians have been spending from 20-30 minutes online to conduct each search.

2. In addition to this time spent at the terminal, each search requires a certain amount of offline preparation time. This offline preparation time has varied widely between libraries, ranging from 6-32 minutes per search.

3. There is also the time required to locate, for the patron, pertinent documents cited in the search results. At this point in the experiment, results indicate that the library conducting the search is not the major supplier of documents. In fact, only 27% of DIALOG patrons obtain documents thru the library at which the search was done. Instead, a wide variety of other sources are used, including principally university libraries to which 33% of the patrons go to obtain documents. Publishers, NTIS, company libraries, the patent office, various state department's libraries, and diverse additional sources also provide patrons with documents.

4. Only 36% of DIALOG patrons are members of the four libraries participating in the experiment. Thus, provision of DIALOG service has increased patronage at the four participating libraries.

In addition to the impact of online search service on reference staff time, ACR has identified the principal users of the system, the reason these users require computer searches, the types of questions being asked, and the frequency with which the service would be used.

User Characteristics

The users of DIALOG service are not the traditional patrons of the public library. The principal classes of users are technical professionals (including civil, nuclear and electronic engineers, geologists and computer specialists) and college and graduate students. The next two major classes of users are individuals in the education field (including teachers, professors, and administrators) and librarians.

Also, the average DIALOG patron is highly educated. Over 40% have advanced degrees and 67% have some graduate work. Also, over 60% of the users are between the ages of 20 and 40 and are male.

Finally, 56% of DIALOG patrons normally use the reference service only several times a year or not at all. Furthermore, when coming into the library to request a DIALOG search, some of these patrons are discovering the many other resources available through the public library for the first time. Many DIALOG patrons have also expressed surprise at the quality of the reference service available through the public library.

System Usage

The types of questions being asked by this well-educated set of users are also not the types of questions normally asked of a reference librarian in a public library. In fact, the majority of questions are highly technical, including titles such as "ion beam processing" and "auger spectroscopy". Yet, using DIALOG, reference librarians in the public library are providing satisfactory answers to these questions - questions which they have indicated they could not have answered, in many instances, without an online retrieval service. Furthermore, over 70% of DIALOG patrons felt that the results of their search were of considerable or major value to them, and 50% felt that the results of the search provided sufficient references to answer their question adequately. This is an important consideration when you realize that almost 70% of all reference questions asked in public libraries have been "simple fact" questions - which are defined as questions requiring a single answer that can be found in one reference tool.

ACR has also found that approximately 70% of these searches are done as either part of the patron's job or for a research paper. Finally, the majority of DIALOG users indicate that they would like to continue to use the service either monthly or at least several times a year.

First Year Conclusions

The first year of project DIALIB has shown then that while online searches are fairly expensive (ranging from $15-25 and requiring substantial amounts of staff time), the public library is providing a

service to a segment of the population that does not normally use a public library reference service. Furthermore, public reference librarians are answering questions that in the past they would have been incapable of answering.

So far, the public has shown a great deal of enthusiasm for this project and has consistently expressed appreciation for the computer search service. Whether the current heavy use of the system will continue now that patron charges have been initiated and how these charges will affect user characteristics and attitudes are some of the questions that ACR will be looking at in the next year of the project.

## METRO - TEACHERS COLLEGE PPOJECT

In addition to Project DIALIB, ACR is evaluating a similar project which is currently providing online search services to public library patrons in New York City. The New York Metropolitan Reference and Research Agency (METRO) has arranged with Teachers College at Columbia University to provide DIALOG service to METRO members and their patrons. The system has differed substantially from the service available in California in that the client has been paying for the computer time required for a DIALOG search. METRO pays a pro-rated share of the fixed expenses for searches done on behalf of METRO members. Teachers College provides the space, reference service, and overhead expenses and services. In addition to METRO's use of the DIALOG service, the Teachers College Library also provides searches for staff, students and faculty at Teachers College. Teachers College is presently averaging about 50 searches per month. The majority of these searches cost the patron between $20-40.

## FUTURE IMPACT

The introduction of computerized reference services to patrons through the public library will almost certainly have a long-term influence on library operations. Thus, the impact of computer search services and fee-for-service operations on public libraries is another major target of future ACR evaluation efforts.

The role of the public library and the public reference librarian will undoubtedly be altered by the introduction of this new technology. Already patrons are requesting additional computer data banks ranging from law, economics and medicine to community services and job information. If such information can be provided at reasonable cost, then public libraries have the potential of furnishing information services which could have a major impact on the communities these libraries serve.

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